

Remarks

In this Response, claims 17, 23-25, 28, 30-36, and 40-41 have been amended; claims 29 and 42 have been cancelled, without prejudice; and claim 44 has been added. These amendments and additions are fully supported by the originally filed application. No new matter is added.

Claims 17-41 and 43-44 are presented for examination.

Examiner Interview

The Applicants thank Examiner for courtesies extended through interview of January 9, 2009. In said interview, the Applicants' undersigned representative discussed various points of distinction between the cited references, including Wang et al. (U.S. Patent No. 6,834,326) (hereinafter "Wang"), and the pending claims. The attendees also discussed various amendments that would further clarify the discussed distinctions. Versions of the discussed amendments are presented in this paper.

Rejections under 35 U.S.C. § 102(e)

In the Office Action, claims 17-43 were rejected under 35 USC 102(e) over Wang et al. (U.S. Patent No. 6,834,326) (hereinafter "Wang").

While the Applicants disagree with the substance of the rejections, they have nevertheless cancelled claims 29 and 42, rendering their rejections moot, and presented amendments to further clarify distinctions of the remaining claims in order to advance prosecution as was discussed in the interview.

Claim 17, as amended, now recites a storage appliance having a controller configured to "provide a root partition on a storage medium, the root partition defining a plurality of characteristics of a redundant array (RA) group that includes a plurality of RA partitions, [and] to provide a RA partition on the storage medium..." The controller is further configured "to determine that [a] data access command pertains to the RA partition based at least in part on the plurality of characteristics."

In Wang, on the other hand, there are no teachings related to providing both a root partition and an RA partition on the same storage medium. In Wang, and other

RAID systems, the plurality of characteristics of an RA group will be centrally located in the controller's dedicated storage/memory. The reason for this is due to the central controller's function of determining where the particular information will be stored in the array. Once the controller determines where the information will be stored in the array, it sends the information to the appropriate disk.

In the Interview, the Examiner mentioned that teachings of Andersen et al. (*Serverless Network File Systems*) (hereinafter "Anderson") would need to be investigated further in light of the proposed amendment. Andersen fails to teach or make obvious a controller "to determine that [a] data access command pertains to the RA partition [of a storage medium] based at least in part on the plurality of characteristics [in the root partition of the storage medium]" as recited in claim 17, for example.

Andersen describes a serverless network file system. While Anderson does teach that each machine may act as a client, storage server, cleaner and manager, it is clear that the appropriate recipient of a data access command is determined by the requesting device. See, e.g., page 11, lines 21 - 24. "When a client writes a segment to a group it ... uses the map's list of storage servers to send the data to the correct machines." Using the maps to determine where the data is going is similar to a traditional RAID controller and inconsistent with the recitation cited above.

Claim 17 is patentable over these references for at least these reasons. Claims 18-28, 30-39 depend from, or include elements similar to, claim 17. Accordingly, these claims are patentable over these references for at least similar reasons.

Claim 40 has been amended to recite that the controller is "to multicast ... a packet to the plurality of RA partitions, the packet having a data access command and a [LBA] associated with only a subset of the plurality of RA partitions."

As described above, Wang fails to teach or make obvious having the root partition and the RA partition on the same storage medium. Furthermore, as described above, Andersen relies on a map that the transmitting device references in order to determine where to send a particular packet. Accordingly, Andersen does not teach, and would not make obvious, the multicasting of a packet to the partitions of the group

when the packet LBA is associated with only a subset (e.g., one) of the partitions.

Claim 40 is patentable over these references for at least these reasons. Claims 41 and 43 depend from claim 40. Accordingly, these claims are patentable over these references for at least similar reasons.

Added claims

The Applicants have taken this opportunity to add claim 44, which depends on claim 28. Claim 44 is patentable over the cited references for at least reasons similar to those given above with respect to claim 28.

Conclusion

For these reasons, a Notice of Allowance, allowing claims 17-43, is respectfully requested. If the Examiner has any questions concerning the present paper, the Examiner is kindly requested to contact the undersigned at 503-796-2972. If any fees are due in connection with filing this paper, the Commissioner is authorized to charge Deposit Account No. 500393.

Respectfully submitted,
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